

**I-5 Interchange 33 (Central Point)
Interchange Area Management Plan
Jackson County**

**DRAFT Technical Memorandum #1
Definition and Background**

Prepared for

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1. DEFINITION AND BACKGROUND

The Oregon Department of Transportation (ODOT) encourages the development of Interchange Area Management Plans (IAMP) to maintain and improve highway performance and safety by improving system efficiency and management before adding capacity. Public investments for major interchange improvements are very costly, and it is in the interest of the State, local governments, citizens of Oregon, and the traveling public to ensure that the interchange functions as it is designed for as long as possible.

Purpose

As described in ODOT's Interchange Area Management Plan Guidelines, the objectives of an IAMP are:

- Protect the state and local investment in major facilities
- Establish the desired function of interchanges
- Protect the function of interchanges by maximizing the capacity of the interchanges for safe movement from the mainline highway facility
- Balance the need for efficient interstate and state travel with local use
- Preserve and improve safety of existing interchanges
- Provide safe and efficient operation between connecting roadways
- Adequately protect interchanges from unintended and unexpected development while accommodating planned community development
- Manage the existing interchange capacity and new capacity provided through interchange improvements
- Establish how future land use and transportation decisions will be coordinated in interchange areas between ODOT and the local governments
- Minimize impacts to farm and forest lands and other resource lands around rural interchanges in accordance with adopted Statewide Planning Goals
- Time development with appropriate improvements to the local system after the interchange improvement is in place

The IAMP planning process examines existing and potential future land use and transportation conditions along with opportunities and limitations and identifies long-range needs. Outcomes include improvements to the local street network in the vicinity of the interchange needed to accommodate anticipated growth in the region and land use actions and/or management measures to be applied in the management area.

State and local regulations, policies, and transportation and land use plans provided the framework for preparing the IAMP. The language contained within these documents provides guidance to the state and local jurisdictions on how to manage transportation and land uses in the interchange influence area to protect the interchange function, provide for safe and efficient operations, and minimize the need and expense for making major improvement to the

interchange through the planning horizon. Hence, the IAMP documents relevant plans and policies, and identifies how they influence planning for the Interchange 33 area. The purpose of the review is to ensure the necessary compatibility, consistency, and compliance required by state law and ODOT policy. A summary description of the reviewed plans and policies is attached at the end of this technical memorandum as Appendix A.

Interchange Function

Interchange 33 is an urban interchange that currently functions as the main access to the City of Central Point in Jackson County as well as providing intermodal access to the Rogue Valley International-Medford Airport and developing industrial areas. It also connects to North Medford via Hanley Road to the west and Biddle Road to the east.

The interchange ramps connect with East Pine Street, the primary east-west route through Central Point. The type of development and subsequent function of East Pine Street differs significantly east and west of the interchange, as reflected by the different plan classifications and connecting roadway networks.

From the interchange eastward towards the airport, East Pine Street is part of the National Highway System (NHS) and is classified as an intermodal connector¹ from I-5 to OR Highway 62 (OR 62). It serves developing commercial and industrial areas along with the Rogue Valley International-Medford Airport to the east and some residential areas to the north. In general, intersections and other accesses are widely spaced with the emphasis on through traffic and freight movement. However, the first intersection, Peninger Road, is located just 500 feet east of the northbound ramp and provides access to the Jackson County Fairgrounds to the north and a truck stop to the south.

West of the interchange, East Pine Street serves downtown Central Point before it connects with OR Highway 99 (OR 99) and continues into primarily residential areas. Downtown Central Point is characterized by a traditional grid system layout of streets with the first intersection located just 400 feet from the southbound interchange ramps. The Central Point Transportation System Plan (TSP) classifies East Pine Street as a principal arterial from 10th Street eastward across the freeway to Peninger Road as reflected in the five-lane cross-section. West of 10th Street, as it enters downtown, East Pine Street is classified as a minor arterial and it narrows to four lanes with on-street parking.

The interchange itself has a standard diamond layout with approximately 1,200 feet between the northbound and southbound ramp terminals. The bridge over I-5 is five lanes wide with a sidewalk on the north side and bike lanes on both sides. Both the northbound and southbound ramp terminals have multi-lane approaches to East Pine Street.

¹ Intermodal Connectors are highways that provide access between major intermodal facilities and the other four subsystems making up the National Highway System. <http://www.fhwa.dot.gov/planning/nhs/>

Problem Statement

The current Central Point population is approximately 16,500 residents. By the year 2030, Central Point's population is estimated to be almost 26,000², making it the second largest city in the Rogue Valley. Interchange 33 will be affected by growing traffic volumes on OR 99, OR 62, and more traffic, including increased freight movements, will be destined for I-5. The potential for additional development, particularly to the north and east, where two urban reserve locations were identified in the *Greater Bear Creek Valley Regional Plan* (GBCVRP) and future fairground expansions, will further exacerbate these issues.

A geometric deficiency assessment, conducted in 2000 for the *I-5 State of the Interstate Report*, reached the following conclusions about the current design of the interchange:

- Designated right-turn lane on eastbound Pine Street at southbound ramp terminal does not have a through bike lane. Higher speeds combined with heavy vehicles create difficult weave maneuver for slow-moving bicyclists.
- Proximity of I-5 interchanges in Medford promotes local trips on I-5.

In addition to these deficiencies, the spacing of the ramp terminals and other access points along East Pine Street does not meet current access standards. Queue spillback between intersections can already be problematic at certain times of the day and during events at the Jackson County Fairgrounds. High truck volumes near the interchange exacerbate queuing issues since trucks require more storage space than passenger vehicles. As traffic volumes continue to grow, the proximity of these intersections will affect the safe function of the interchange area.

East Pine Street is one of three I-5 crossings in Central Point. The others, Upton Road and Table Rock Road, lie approximately one mile to the north and one and one-half miles to the south, respectively. These are also the only crossings of Bear Creek, which runs parallel to and east of I-5. Penger Road, which serves those land uses between Bear Creek and I-5, connects northward to Upton Road but has no connections across either the freeway or the creek south of East Pine Street. With these limited crossings, demand will continue to grow and focus on East Pine Street.

Although not identified specifically in the current Rogue Valley Metropolitan Planning Organization (RVMPO) Regional Transportation Plan 2009 – 2034 (RTP) or City of Central Point TSP, interchange operational deficiencies were identified, and projects listed specifically, for the interchange in previous versions of the plans as well as in the East Pine Street Transportation Plan (2004) which is reviewed in Appendix A.

² City of Central Point Transportation System Plan, 2008 to 2030, December 18, 2008, page 14.

IAMP Goal and Objectives

The goals of this IAMP are to develop a plan for improvements for Interchange 33 that can be implemented over time to maximize the function of the existing interchange and address the long-term needs of the Central Point and other Rogue Valley communities.

The objectives of the IAMP are to:

- Protect the function of the interchange and East Pine Street as specified in the Oregon Highway Plan (OHP), RVMPO Regional Transportation Plan, and City of Central Point Transportation System Plan.
- Develop concepts to improve safety and maximize operational efficiency of the freeway and interchange to address existing and future needs.
- Evaluate the need for capacity improvements based on the adopted comprehensive land use plans of Central Point and Jackson County.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, and meets OHP requirements and the access spacing standards in Oregon Administrative Rule (OAR) 734-051.
- Incorporate the Greater Bear Creek Valley Regional Plan into the design and management systems for Interchange 33, including recommended strategies for land use control.
- Incorporate the analysis of the City's Pine Street Four-Lane to Three-Lane Conversion study.

IAMP Planning Area

The IAMP area delineates the vicinity in which transportation facilities, land uses, and approaches may affect operations at the interchange. The planning area, shown in Figure 1-1, generally encompasses properties within one-half mile of the interchange and includes the existing interchange, the immediate surrounding area where potential improvements to ramps could occur, developed areas of Central Point west of I-5, and largely undeveloped properties east of I-5.

Attachments:

Figure 1-1. IAMP Area and Street Network
Appendix A. Review of Plans and Policies

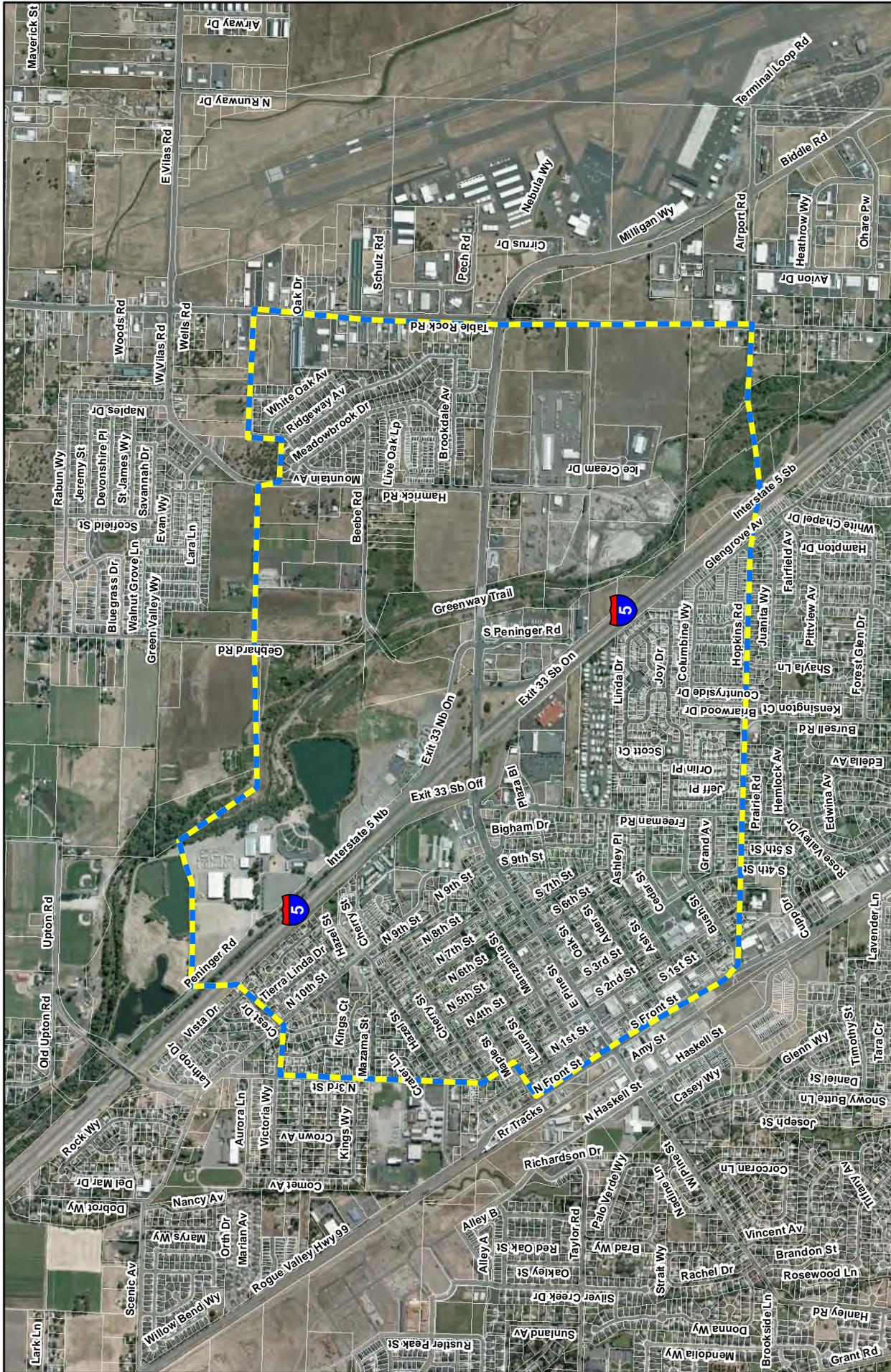


Figure 1-1
Project Vicinity and Study Area
 I-5 Interchange 33 (Central Point)
 Interchange Area Management Plan
 Jackson County

Legend
 Study Area Boundary
Taxlot boundaries indicated in white

1,500 750 0 1,500 Feet



Source Data: ESRI, Jackson County, Microsoft (2001-09)

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